7515A Terminal Street SW
Tumwater, Washington 98501-7247
(360) 570-1992
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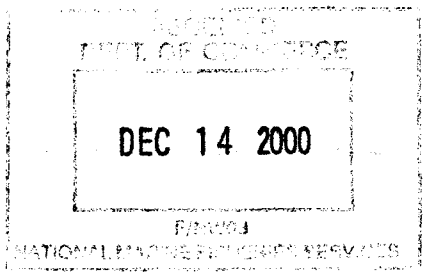
PORT BLAKELY TREE FARMS, L.P.
Managing Land and Timber Since 1864

1336



December 8, 2000

Leslie Schaeffer
National Marine Fisheries Service –F/NW03
525 NE Oregon Street, Suite 500
Portland, OR 97232-2737

Dear Leslie,

Please find enclosed a completed application for an incedintal take permit for scientific purposes under the Endangered Species Act of 1973. Port Blakely Tree Farms (PBTF) has timberlands located in Clackamas, Douglas, and Coos Counties in Oregon and Lewis County in Washington which fall within the the Oregon Coast ESU, Lower Columbia River ESU, and the Upper Willamette River ESU. Port Blakely wishes to continue surveying headwater streams on their ownership to determine fish distribution, identify fish barriers, and update stream classifications where necessary.

Stream surveys will be conducted March 1 through June 30 in 2001 and 2002 using a backpack electroshocker and visual observation. Electrofishing protocols will follow the guidelines established by the National Marine Fisheries Service (June 2000). Only juvenile salmonids will be examined visually to determine species and then immediately released, unharmed, at the capture site.

I have enclosed an electronic copy of the completed application, study plan, and anticipated annual take on diskette. Please call me if I can provide additional information to expediate the application process.

Sincerely,

S. Blake Murden

S. Blake Murden
Wildlife Biologist
Port Blakely Tree Farms
7515-A Terminal St. SW
Tenino WA 98501
(360) 570-7127

360-280-4138

A. Title: Application for Permit for Scientific Purposes under the Endangered Species Act of 1973.

B. Species: Coho Salmon (*Oncorhynchus kitsutch*) in the Oregon Coast ESU, Steelhead (*Oncorhynchus mykiss*) and Chinook Salmon (*Oncorhynchus tshawytscha*) in the Lower Columbia River ESU and Upper Willamette River ESU.

C. Date of Permit Application: December 8, 2000

D. Applicant Identity:

1. Dr. Ken L. Risenhoover, Director of Wildlife & Fisheries Program
2. Port Blakely Tree Farms, L.P.
3. 7515-A Terminal Street S.W., Tumwater, Washington, 98501
4. Phone: (360) 570-7111 FAX: (360) 570-0311
   Email: krisenhoover@portblakely.com
5. N/A

E. Information on Personnel, Cooperators, and Sponsors:

1. Principle Investigator: Dr. Ken L. Risenhoover (360) 570-7111
   Field Supervisor: S. Blake Murden (360) 570-7127
2. Tim McBride, Sue Meiman, Mark Golliet
3. Port Blakely Tree Farms, L.P., 7515-A Terminal St. S.W., Tumwater, WA 98501 Phone: (360) 570-1992
4. N/A
5. Although we do not anticipated mortalities, in the event of an incidental take in Washington or Oregon the dead specimen would be preserved and surrendered to the following:
   - Brian Urbain, Collection Manager, University of Washington Fish Collection, Fisheries Teaching and Research Building, Box 355100, University of Washington, Seattle, Washington 98195-5100.
   - Doug Markle, Curator, Wildlife and Fish Collection, 104 Nash Hall, Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon 97331-3803
6. N/A

F. Project Description, Purpose, and Significance:

1. Port Blakely Tree Farms is involved in a study to evaluate ~~factors~~ limiting the distribution of fishes in streams on their ownership. Part of this study involves electroshocking streams using the guidelines established by the National Marine Fisheries Service (NMFS). Specifically, this study examines landform characteristics of streams and other physical features to quantify conditions that appear to limit fish distribution in upper reaches of streams on our ownership in Washington and Oregon. In addition, we are assessing fish habitat characteristics including large

woody debris placement, water quality, and substrate. This project is part of a baseline data collection effort that will be used to develop management prescriptions and conservation measures for riparian areas on Port Blakely's timberlands. Please see the attached Study Plan.

2. The proposed study does not respond directly or indirectly to a recommendation or requirement of a Federal agency.
3. Preliminary results from this study have lead to the following collaborative salmon habitat restoration projects:
   - 1998 -Port Blakely Tree Farms (PBTF) and Oregon Department of Fish and Wildlife (ODFW) large woody debris (LWD) placement in Little Clear Creek.
   - 1999 -PBTF and ODFW LWD placement in Alder, Canyon, and Woodcock Creeks.
   - 1999- PBTF, ODFW, and USFWS installed a fish passage enhancement structure on Mossier Creek.
   - 2000 – PBTF and ODFW LWD placement in Canyon Creek.
   - 2000 - PBTF, ODFW, and USFWS installed 9 fish passage enhancement structures on Alder, Little Clear, and Mossier Creeks.
4. Our study is site-specific and designed to provide local information about the stream conditions on Port Blakely's ownership and their physical characteristics. Fish distribution and habitat data are currently unavailable for a portion of our ownership and can only be obtained by conducting stream surveys.
5. The proposed method of stream sampling using electrofishing techniques provides the most reliable for detecting salmonid presence. Alternative methods for stream sampling include snorkeling and visual observations. Visual observations cannot be used to confirm fish presence or absence and snorkeling is only considered effective in medium and large streams. Because our study focuses on the upper reaches of fish distribution, generally, we are surveying first and second order streams. The low flow conditions in these small streams would not facilitate observation using the snorkeling technique.

G. Project Methodology:

1. March 1, 2001 – June 30, 2001
2. a. A Smith-Root Model 12-B backpack electrofisher will be used to sample streams to determine juvenile salmon distribution in the uppermost stream reaches on Port Blakely's timberlands. Juvenile salmon will be examined visually while in a net to determine species and size class, then immediately released, unharmed, at the capture site. No tissue samples or measurements will be taken.
   b. N/A
   c. N/A
   d. N/A
   e. N/A

3. When electroshocking, fish close to the anode receive a high head-to-tail voltage (Smith-Root, Inc.1999). We use a Smith-Root Model 12-B backpack electrofisher that employs a sweeping waveform. This progressively reduces the duty-cycle as the fish nears the anode. The varying waveform helps prevent fish injury (Smith-Root, Inc. 1999). To further minimize adverse effects, electrofishing protocols will follow the procedures outlined in the "Guidelines for electrofishing waters containing salmonids listed under the Endangered Species Act (June, 2000)" established by the National Marine Fisheries Service (NMFS).

H. Description and Estimates of Take:

1. Coho Salmon (*Oncorhynchus kitsutch*) in the Oregon Coast ESU, Steelhead (*Oncorhynchus mykiss*) and Chinook Salmon (*Oncorhynchus tshawytscha*) in the Lower Columbia River ESU and Upper Willamette River ESU.
2. Sampling will be conducted March 1st - June 30th in tributaries to the Clackamas River (Little Cedar Cr.), Molalla River (Clear Cr., Little Clear Cr., Cedar Cr., Sorenson Cr., Canyon Cr., Alder Cr., Shotgun Cr., South Dickey Cr.) and the Willamette River (Teasel Cr., Rock Cr., Beaver Cr., Clear Cr.) in Clackamas County, Oregon; tributaries to Tahkenitch Lake (Five Mile Cr., Mallard Cr.), Siltcoos Lake (Fiddle Cr.), Smith River (Butler Cr., Hudson Slough, Frantz Cr.), and Umpqua River (Scholfield Cr.) in Douglas County, Oregon; and tributaries to Isthmus Slough (Noble Cr.) and Coquille River (Hantz Cr., Steele Cr., North Noble Cr., Dye Cr., Beaver Cr., Big Cr., Brummit Cr., Newmada Cr., Wood Cr.) in Coos County, Oregon; and tributaries to the Cowlitz River (Little Salmon Cr., Olequa, Cr., Coon Cr., Hill Cr., North Fork Brim Cr., Snow Cr., Stillwater Cr., Lackamas Cr., Otter Cr., Baker Cr., Mill Cr., King Cr., Curtis Cr.) in Lewis County, Washington that run through land owned by Port Blakely Tree Farms.
3. Coho Salmon (*Oncorhynchus kitsutch*) were listed as a threatened species in the Oregon Coast ESU in August 1998. Steelhead (*Oncorhynchus mykiss*) were listed as a threatened species in the Lower Columbia River ESU in March 1998 and in the Upper Willamette River ESU in March 1999. Chinook Salmon (*Oncorhynchus tshawytscha*) were listed as a threatened species in the Lower Columbia River ESU and Upper Willamette River ESU in March 1999.
4. See attached table of "Anticipated Annual Take".
5. We anticipate no mortality of naturally-produced Coho, Chinook, and Steelhead juveniles during our sampling period.
6. Take and mortality estimates were derived from prior sampling activities (1996-2000). During the past 4 years, Port Blakely Tree Farms biologists have surveyed streams on approximately 100,000 acres in Western Washington and Oregon to determine fish presence. During this 4-year sampling period, less that 0.1 % mortality has occurred for all fish species surveyed.

I. Transporting and Holding:

a. N/A
b. N/A
c. N/A
d. N/A
e. N/A
f. N/A

J. Cooperative Breeding Program: Port Blakely Tree Farms does not have facilities for participating in a fish-breeding program. However, we would be willing to cooperate with state and federal scientists in collection efforts.

K. Previous or Concurrent Activities Involving Listed Species:

1. 2000 Scientific Taking Permit – Fish. Issued March 2000 by the Oregon Department of Fish and Wildlife, Fish Division, and is Permit Number: 00-59. This permit authorized the examination and release of juvenile steelhead, cutthroat trout, coho salmon, chinook salmon, chum salmon, and other species.
   2000 Scientific Collection Permit. Issued March 2000 by the Washington Department of Fish and Wildlife, and is Permit Number: 00-176. This permit authorized Port Blakely to conduct electrofishing to determine fish presence in streams on their ownership.
   1999 Scientific Taking Permit – Fish. Issued March 1999 by the Oregon Department of Fish and Wildlife, Fish Division, and is Permit Number: 9835. This permit authorized the examination and release of fish taken by electroshocking.
   1999 Scientific Collection Permit. Issued February 1999 by the Washington Department of Fish and Wildlife, and is Permit Number: 99-089a. This permit authorized Port Blakely to conduct electrofishing of salmonids and resident fish species in streams on their ownership.
   1998 Scientific Collection Permit. Issued March 1998 by the Washington Department of Fish and Wildlife, and is Permit Number: 98-196b. This permit authorized Port Blakely to conduct electrofishing of salmonids and resident fish species in streams on their ownership.
   1997 Scientific Taking Permit – Fish. Issued April 1997 by the Oregon Department of Fish and Wildlife, Fish Division, and is Permit Number: 9738. This permit authorized the examination and release of cutthroat trout, coho salmon, and steelhead taken by electroshocking.
   1997 Scientific Collection Permit. Issued April 1997 by the Washington Department of Fish and Wildlife, and is Permit Number: 044. This permit authorized Port Blakely to conduct electrofishing of salmonids and resident fish species in streams on their ownership.
2.
   a. Port Blakely has been conducting stream surveys for the past 4 years in Western Washington and Oregon. Two Coho salmon juveniles were

lethally collected in Washington in 1998, and two in 2000. No listed species mortalities occurred during surveys conducted in 1997 and 1999.
b. The four Coho Salmon (*Oncorhynchus kitsutch*) juveniles were lethally collected as a result of their close proximity to the electrofisher anode.
c. Port Blakely Wildlife Biologists have 8 years combined experience electrofishing in Western Washington and Oregon headwater streams. In 1998, Port Blakely began using a Smith-Root Model 12-B electrofisher that employs a sweeping waveform. This progressively reduces the duty-cycle as the fish nears the anode. The varying waveform helps prevent fish injury (Smith-Root, Inc. 1999). To further minimize adverse effects, electrofishing protocols will follow the guidelines for electrofishing established by the National Marine Fisheries Service (June 2000).

L. Certification:

"I hereby certify that the foregoing information is complete, true and correct to the best of my knowledge and belief. I understand this information is submitted for the purpose of obtaining a permit under the Endangered Species Act of 1973 (ESA) and regulations promulgated there under, and that any false statement may subject me to criminal penalties of 18 U.S.C. 1001, or to penalties under the ESA."

_____ _____

Signature Date

Ken L. Risenhoover, Ph.D.
Director of Wildlife & Fisheries Program
Port Blakely Tree Farms, L.P.

Anticipated Annual Take

6/27/01
phone MSG = Split take

Applicant: Ken L. Risenhoover

Location/Project: Oregon and Washington

Number of Individuals	Species and/or Population and/or ESU	Life Stage	Sex	Origin	Take Activity Category	Location	Date(s)	Details
50	Coho Salmon (Oregon Coast ESU)	Juvenile	N/A	wild	Observe/harass	OR, Douglas and Coos Counties	March - June	
50 UWR = 25 LCR = 25	Chinook Salmon (Lower Columbia River and Upper Willamette River ESUs)	Juvenile	N/A	wild	Observe/harass	OR, Douglas, Coos, and Clackamas Counties	March - June	
100 UWR = 50 LCR = 50	Steelhead (Lower Columbia River and Upper Willamette River ESUs)	Juvenile	N/A	wild	Observe/harass	OR, Douglas, Coos, and Clackamas Counties WA, Lewis County	March – June	

Study Plan

Factors limiting fish distribution in Western Washington and Oregon: An evaluation of headwater streams

Purpose:
This study evaluates factors limiting the distribution of fish species occurring in headwater streams on Port Blakely Tree Farms' ownership in Western Washington and Oregon. Specifically, this study examines the physical characteristics of uppermost fish habitats and quantifies conditions (either natural or man-made) that appear to limit their distribution. The results of this study will provide baseline data needed to adapt the riparian management prescriptions and conservation measures outlined in our federal Habitat Conservation Plan (HCP) for the Robert B. Eddy Tree Farm (approved July 1996) to our remaining lands in Washington and Oregon. These management prescriptions require local site-specific information that can only be obtained by sampling stream characteristics on Port Blakely's ownership. Fish distribution and habitat data are currently unavailable for a portion of our ownership and can only be obtained by conducting detailed field surveys.

General Approach:
1. Electrofishing: A portion of this study employs electrofishing techniques to determine fish distribution on Port Blakely's timberlands. Electrofishing is a technique that provides the most reliable method for detecting fish presence or absence. Port Blakely biologists use a Smith-Root Model 12-B electrofisher and follow the guidelines for electrofishing established by the National Marine Fisheries Service (June 2000, NMFS). All stream surveys will be conducted March – June.

2. Water quality: We will measure stream turbidity, temperature, pH, conductivity, and the amount of dissolved oxygen using a Horiba U-10 water quality sampler. Stream flow measurements will be recorded at the downstream end of each segment to determine discharge rates. In addition, selected stream segments will be monitored for summer and daily high temperatures using an Onset Stowaway data logger.

3. Landform and stream characteristics: Riparian landform and stream channel characteristics will be measured along each stream segment. More specifically, the geology, substrate quality, valley and bankfull width, stream gradient and confinement, and riparian vegetation will be recorded. In addition, cross-sectional terrain measurements, length and width of habitat units, and large woody debris placement will be measured based on Timber, Fish and Wildlife (TFW) Ambient Monitoring program modules. Likewise, the locations of sensitive sites (i.e., seeps and springs), points of perennial flow, and last fish habitat will be mapped.

4. Fish Barriers: Fish passage barriers will be mapped and identified as natural or man-made. If man-made barriers (i.e., perched or under-sized culverts) are detected, the information will be reported to Port Blakely's Forest Engineer and the barrier will be scheduled for removal. Once fish passage barriers have been removed, stream segments above the barrier will be re-surveyed to determine the extent of fish distribution.

Anticipated Benefits:
This study will provide site-specific information about the stream conditions on Port Blakely's ownership that will be used to conserve and restore critical fish and wildlife habitat. Preliminary results from this study have lead to habitat restoration efforts by Port Blakely including large woody debris placement, removal of man-made fish passage barriers, and installation of fish passage enhancement structures. In addition to providing accurate and detailed landform and fish distribution data, Port Blakely will continue to provide ground-verified stream classification data to the appropriate state agencies.

Duration:
This study will be conducted for 2 years, each field season beginning in March and ending in June.